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CLAIMS

1. A scanning probe inspection apparatus for detecting anomalies in a passive element out of a plurality of passive elements connected together to form a chain pattern intermittently exposing portions of said chain pattern to a surface of a chip, the scanning probe inspection apparatus comprising:

a bias voltage supplier for applying a bias voltage between both ends of said chain pattern;

two probes arranged at a spacing determined by a distance between said exposed portions of said pattern; a detector for detecting a potential difference between said two probes; and

a scan section provided to cause said two probes to scan over a surface of a wafer containing said chip while keeping unchanged said spacing between said two probes.

- 2. The scanning probe inspection apparatus according to claim 1, wherein said plurality of passive elements are arranged at a given pitch and said two probes are spaced from each other a distance equal to or greater than twice said given pitch of said plurality of passive elements.
- 3. The scan type probe inspection apparatus according to claim 1, wherein said passive elements are through-holes and wherein said through holes are coupled to one another such that one upper interconnect line is coupled to an upper end of one through-hole out of adjacent through-holes and one lower interconnect line is coupled to a lower end of said one through-hole out of adjacent through-holes and a

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lower end of the other through-hole out of adjacent through-holes, thereby forming a chain unit including said one upper interconnect line, said adjacent through-holes and said one lower interconnect line, and further, a plurality of chain units are coupled in series, and wherein said-probes contact upper interconnect lines including said one upper interconnect line.

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- 4. The scanning probe inspection apparatus according to claim 1, wherein said probe has a thin plate shaped base portion, a lever extending from said base portion and a needle formed at a distal end of said lever, wherein said base portion, lever and needle are formed by processing one of a semiconductor and a metal material.
- 5. The scanning probe inspection apparatus according to claim 4, wherein said needle is so formed as to be inclined from said distal end of said lever in a direction that said distal end points.
 - 6. The scanning probe inspection apparatus according to claim 4, wherein said probe is formed by coating a surface of silicon with a conductive material.
 - 7. The scanning probe inspection apparatus according to claim 6, wherein said conductive material is boron-doped diamond.